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ENHANCED INCIDENCE OF "THE SENSED PRESENCE" IN PEOPLE WHO HAVE LEARNED TO MEDITATE: SUPPORT FOR THE RIGHT HEMISPHERIC INTRUSION HYPOTHESIS[1]

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Summary.—If the "sensed presence" is the transient intrusion of the right hemispheric equivalent of the left hemispheric (and highly linguistic) sense of self, then any process that facilitates interhemispheric electrical coherence should enhance these experiences. As predicted, the "ego-alien intrusion" (sensed presence) factor was specifically and significantly elevated in 221 people who had learned to meditate (65 to 70% were involved in Transcendental Meditation) compared to 860 nonmeditators. Variants of a sensed presence were more frequent in female than in male meditators and were particularly evident in left-handers who had learned to meditate. The effect size suggests that learning a meditation technique is counterindicated for subpopulations, such as borderline, schizotypal, or dissociative personalities, who display very fragile self-concepts.

We (Persinger & Makarec, 1992, 1993) have hypothesized that the experience of a sensed presence or ego-alien intrusion, such as a Spiritual Being or the Cosmic Consciousness, is associated with the transient intrusion of the right hemispheric equivalent of the left hemispheric (and strongly linguistic) sense of self. If any process that encourages brief coherence of interhemispheric electrocortical activity facilitates the experience of "sensed presence," then meditation, which increases interhemispheric homogeneity of electrical activity within the alpha and theta range (Persinger, Carrey, & Suess, 1980; Wallace, 1970), should facilitate interhemispheric intrusions (Munro & Persinger, 1992).

To test these hypotheses, the Personal Philosophy Inventories of 1,081 university students (ages 18 to 60 years), collected over 11 consecutive years, were evaluated. All analyses involved SPSS^{X} software on a Vax 4000 computer. A total of 101 men and 120 women reported they had learned to meditate; specific questioning during three of these 10 years indicated that 65 to 70% had taken Transcendental Meditation. For the four religious categories (Roman Catholic, Protestant, Agnostic-Atheist, and Other), $\chi^2 = 16.72$ ($p < 0.001$) and suggested a reduction in the expected ratio of meditators among the Protestants (12%) only. The single most powerful item correlation ($\phi = 0.26$, $p < 0.001$) occurred between learning to meditate and the report of an intense religious experience.

One-way analyses of variance were completed for men and women separately for each of the three major factors: Factor 1. sensory enhancement (sample items: meaningful experiences between midnight and 4:00 A.M.; intense smells from nowhere), Factor 2. affect (sample items: become excited about insignificant events; use of hunches rather than learning to solve problems), and Factor 3. ego-alien intrusions (experience of visitation by spiritual being; heard an inner voice call the person's name) as measured by Persinger and Makarec (1993). These scores (all *df*s = 1,437; means and standard deviations in parentheses for percentage of endorsed items) for male nonmeditators ($n = 338$) and meditators ($n = 101$) were 23% (20) and 30% (21) ($F = 9.95$, $p < 0.01$; *eta* = 0.15), 55% (25) and 61% (24) ($F = 3.33$, ns, *eta* = 0.09) and 14% (17) and

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28% (25) ($F = 39.82$, $p < 0.001$; *eta* = .29). For the women nonmeditators ($n = 522$) and meditators ($n = 120$), the scores (all dfs = 1,644) for the three factors were 31% (21) and 39% (25) ($F = 17.01$, $p < 0.001$; *eta* = 0.15), 55% (21) and 58% (24) ($F = 2.39$, $p > 0.05$; *eta* = 0.05) and 13% (16) and 29% (22) ($F = 88.55$, $p < 0.001$; *eta* = 0.35). Covariance for age before the analyses did not reduce the effect sizes.

Because the normal human female brain is less functionally and electrically (Corsi-Carrera, Herrera, & Malvido, 1989) lateralized (more homogeneous) than the male brain, the enhanced effect size of meditation for the ego-alien intrusion factor in women was expected. If a comparable diminished lateralization component is important, then left-handers (Harshman & Hampson, 1988) who have meditated (particularly men) should report higher scores on this factor. Three-way analyses of variance were performed as a function of sex, (preferred writing) handedness (left = 130, right = 951), and meditation experience. Both the interactions of handedness by meditation ($F_{1,073} = 9.38$, $p = 0.002$) and sex by meditation by handedness ($F_{1,073} = 6.18$, $p < 0.01$) were significant for the intrusion factor but not for the other two factors (all Fs < 1.00). The scores were for right-handed nonmeditators ($n = 765$) 13% (16), for left-handed nonmeditators ($n = 95$) 14% (17), for right-handed meditators ($n = 186$) 28% (20), and for left-handed meditators ($n = 35$) 39% (28). The three-way interaction showed higher intrusion scores for the left-handed male meditators than for the left-handed female meditators.

These results are commensurate with the hypothesis that the very common human experience of the "sensed presence" or entity (Evans, 1984) is the transient intrusion of the right hemispheric equivalent of the sense of self into left hemispheric processing. The model assumes that (1) the microstructural organization (and correlative electromagnetic patterns from these neural networks) of the normal left hemisphere of the human brain generates the major capacity for language and (2) a "critical mass" of linguistic competence and processing is required for the emergence of the sense of self. An equivalence of this microstructural organization, modified within the functional demands of the right hemisphere, must also exist. However, its manifestation would be determined by highly variable and often limited formal language capacity (e.g., between men and women, left-handers and right-handers).

Munro and Persinger (1992) have shown that theta bursts within the right temporal lobe are correlated with experiences of ego-alien intrusions; the proclivity to generate theta rhythms was associated with inferences of the subjects' preexperimental temporal lobe lability. However, any process that promotes brief bursts of interhemispheric matching (coherence), such as meditation, should also increase the probability of these equivalent neuropatterns from the right hemisphere to intercalate with the ongoing experience of awareness. The neural patterns would not be exactly the same as those generated within the left hemisphere and hence would be experienced as from "outside of the self." From this perspective, the sensed presence is simply a brief awareness of the right hemispheric equivalent of the person's own self-concept.

As predicted (Persinger, 1992), the utilization of a cognitive-linguistic (left hemispheric) process (such as meditation) to facilitate the coherence also enhances the positive affect of the phenomenology and encourages its attribution to a religious experience. Although the most parsimonious explanation would require that all spiritualistic experiences in the normally lateralized brain are variants of these intrusions, the actual stimuli that trigger the patterns that evoke this class of perceptions may be derived from many different sources. The results of dichotic listening experiments by Lavallée and Persinger (1992) suggest below average (but not clinically impaired) efficiency of corpus callosal transmission, or hypometabolic activity of the right hemispheric homologue, would predispose the person to brief (compensatory) hypermetabolic periods that would trigger intrusions and experiences of a presence.

Considering the fragile nature of the sense of self in borderline, dissociative, and schizotypal personality disorders, the utilization of procedures that encourage ego-alien intrusions, such as meditation, would be strongly counterindicated unless there is a concurrent highly structured social support network to redefine and to reinforce those cognitive processes that are expe-

rienced as the self-concept. These critical reinforcements are clearly institutionalized in some meditation groups, such as TM (Persinger, *et al.*, 1980). Because individuals who display a poorly integrated sense of self are more prone to volatile episodes of negative affect and (sudden) intrusive self-destructive ideation, the results of this analysis and the general model of vectorial hemisphericity (Persinger, 1992) suggest that enhanced experiences of a sensed presence in social isolation could be deleterious.

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